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REMARKS

A Petition and Fee for One Month Extension of Time is submitted herewith.

Claims 1-19 are all the claims presently pending in the application. Claims 1-7 have been amended to more particularly define the invention. Claims 8-19 have been added to claim additional features of the claimed invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claim 6 stands rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement.

Claims 1 and 6 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Luo et al. (U. S. Patent 7,092,573). Claims 2 and 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ray et al. (U. S. Patent 6,940,545) in view of Lobo et al. (U. S. Patent 5,835,616) further in view of Luo.

Claims 4, 5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ray, Lobo and Luo and further in view of Sannoh et al. (U. S. Patent Pub. No. 2003/0071908 A1).

These rejections are respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as recited in claim 1) is directed to an image processing method for performing image processing on image data. The method includes generating face region information to identify the face region from the image data, and performing noise reduction on the face region of the image data based on the face region information.

Importantly, the noise reduction may be selectively performed based on an operating mode of a device performing the image processing (Application at page 6, lines 7-12; page 10,

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lines 6-19).

Another exemplary aspect of the claimed invention (e.g., as recited in claim 2) is directed to a digital camera which includes control unit for operating a face region identification unit and noise reduction unit depending on a photography mode (Application at Figure 1).

Conventional devices perform a noise reduction on an entire image. However, this removes the edge component of a contour resulting in a flat image as a whole (Application at page 2, lines 12-19).

An exemplary aspect of the claimed invention, on the other hand, may selectively perform the noise reduction based on an operating mode of a device performing the image processing (Application at page 6, lines 7-12; page 10, lines 6-19), and another exemplary aspect includes control unit for operating a face region identification unit and noise reduction unit depending on a photography mode (Application at Figure 1). These features may help to allow the invention to avoid removing an edge component in a mode (e.g., a mode other than a high-speed mode).

II. THE 35 USC 112, FIRST PARAGRAPH REJECTION

The Examiner alleges that claim 6 fails to comply with the enablement requirement of 35 USC 112, first paragraph.

Applicant notes, however, that the specification has been amended to recite "thus, the present invention includes an image processing program for performing image processing on image data, the program causing a computer to serve as means for generating face region information to identify the face region from the image data and means for performing noise reduction on the face region of the image data", which was included in original claim 6.

In view of the foregoing, the Examiner is respectfully requested to withdraw this rejection.

III. THE ALLEGED PRIOR ART REFERENCES

A. Luo

The Examiner alleges that Luo teaches the claimed invention of claims 1 and 6.

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Applicant submits, however, that there are features of the claimed invention that are not taught or suggested by Luo.

However, Applicant submits that Luo does not teach or suggest " *wherein said noise reduction is selectively performed based on an operating mode of a device performing said image processing*", as recited, for example, in claim 1 (Application at page 6, lines 7-12; page 10, lines 6-19). This may help to allow the invention to avoid removing an edge component in a mode (e.g., a mode other than a high-speed mode).

Clearly, this novel feature is not taught or suggested by Luo.

Indeed, Luo merely discloses a method of enhancing a digital image (Luo at Abstract). Nowhere does Luo teach or suggest a device for performing image processing. Therefore, Luo clearly does not teach or suggest an "operating mode" for such a device, and certainly does not teach or suggest selectively performing noise reduction based on an operating mode of a device performing the image processing.

Therefore, Applicant submits that there are features of the claimed invention that are not taught or suggested by Luo. Therefore, Applicant respectfully requests that the Examiner withdraw this rejection.

B. Ray and Lobo

The Examiner alleges that Ray would have been combined with Lobo and Luo to form the invention of claims 2 and 3. Applicant submits, however, that these alleged references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

Applicant submits that these alleged references are unrelated. Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in

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the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Ray, nor Lobo, nor Luo nor any alleged combination thereof teaches or suggests "*control unit for operating said face region identification unit and said noise reduction unit depending on said photography mode*", as recited, for example, in claim 2 (Application at page 6, lines 7-12; page 10, lines 6-19). As noted above, this may help to allow the invention to avoid removing an edge component in a mode (e.g., a mode other than a high-speed mode).

Clearly, this novel feature is not taught or suggested by Ray or Lobo.

Indeed, the Examiner concedes that neither Ray nor Lobo teaches or suggests that "the noise reduction means is operated by control means depending on the photographing mode" (The last four lines at page 9 of the Office Action). Then, the Examiner alleges that Luo teaches that "an image processing apparatus performs enhancement (Fig. 1, steps 40, 44, 60, 70) including noise reduction in addition to color balance adjustment on a human face region (face region 95 shown in Fig. 3) of an image after the face region was identified by face region identification algorithm so as to further enhance the image based on the detected region" (first paragraph at page 10 of the Office Action).

However, the Examiner's allegation above regarding Luo fails to point out that Luo discloses that the noise reduction means is operated depending on the photographing mode. Thus, neither Ray, nor Lobo, nor Luo teaches or suggest the invention of claim 2.

Further, on page 10 of the Office Action, the Examiner attempts to rely on Ray at col. 4, lines 15-17 and col. 6, lines 48-55 to support his position. However, these passages simply describe a framing mode and a final imaging mode. Nowhere do these passages teach or suggest any relationship between a mode and performing a noise reduction.

Moreover, even assuming (arguendo) that Ray somehow teaches performing a noise reduction in one mode and not performing noise reduction in another mode, nowhere does Ray teach or suggest operating a noise reduction unit depending on a photography mode as in the claimed invention. Therefore, Ray clearly does not teach or suggest the claimed invention.

Likewise, Lobo does not teach or suggest the novel features of the claimed invention.

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Indeed, Lobo simply teaches a process for automatically finding a human face in a digital image (Lobo at Abstract). Nowhere does Lobo teach or suggest an operating mode of a device, let alone operating a noise reduction unit depending on a photography mode as in the claimed invention.

Therefore, Lobo clearly does not make up for the deficiencies in Ray and Luo.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

C. Sannoh

The Examiner alleges that Ray, Lobo and Luo would have been combined with Sannoh to form the invention of claims 4, 5 and 7. Applicant submits, however, that these alleged references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

Applicant submits that these alleged references are unrelated. Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Ray, nor Lobo, nor Luo, nor Sannoh, nor any alleged combination thereof teaches or suggests "*control unit for operating said face region identification unit and said noise reduction unit depending on said photography mode*", as recited, for example, in claim 2 (Application at page 6, lines 7-12; page 10, lines 6-19). As noted above, this may help to allow the invention to avoid removing an edge component in a mode (e.g., a mode other than a

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high-speed mode).

Clearly, this novel feature is not taught or suggested by Sannoh.

Indeed, the Examiner attempts to equate the CPU 115a in Sannoh with the control unit of the claimed invention. However, this is completely unreasonable.

In fact, Sannoh simply teaches that the CPU 115a executes a control program to carry out face detection (Sannoh at [0153]), judges if a photometric method has been set and if so, determines if optical intensity is to be measured only by a face portion (Sannoh at Figure 14A; [0159]). That is, nowhere does Sannoh teach or suggest operating a noise reduction unit based on whether the photometric method has been set.

Therefore, nowhere does Sannoh teach or suggest operating a noise reduction unit depending on a photography mode as in the claimed invention.

Therefore, Sannoh clearly does not make up for the deficiencies in Ray, Luo and Lobo.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

IV. FORMAL MATTERS AND CONCLUSION

The title and specification have been amended to address the Examiner's objections thereto. In addition, claim 2 has been amended to replace "photographing mode" with "photography mode" as recited in claims 3-5 and 7 to address the Examiner's objections thereto.

Further, the drawings have been corrected to replace "CCD" and "NOISE IDENTIFYING SECTION" with "LCD" and "FACE IDENTIFYING SECTION", respectively, to address the Examiner's objections thereto.

In view of the foregoing, Applicant submits that claims 1-19, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

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Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

To the extent necessary for submitting this response, Applicant hereby petitions for an extension of time under 35 C. F. R. 1.136. The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 4/30/07

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment was filed by facsimile with the United States Patent and Trademark Office, Examiner Nhan T. Tran, Group Art Unit # 2622 at fax number (571) 273-8300 this 30th day of April, 2007.



Phillip E. Miller

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